Claims

We claim:

1. A method for analyzing a circuit design comprising:

reading violations of a specification for a circuit design;

identifying symptoms of the violations based on the circuit design;

identifying solutions to the violations based on the symptoms, using data in a solutions database; and

proposing a proposed solution based on data stored in the solutions database.

2. The method of claim 1, further comprising:

running an E-CAD tool on the circuit design; and

detecting violations of the specification using the E-CAD tool.

3. The method of claim 2, further comprising storing the violations to a violations file, and wherein the step of reading violations comprises reading the violations file.

4. The method of claim 2, further comprising configuring the E-CAD tool to the circuit design using a configuration file.

5. The method of claim 1, further comprising:

receiving a selected solution;

re-configuring an E-CAD tool based on the selected solution; and

re-running the E-CAD tool on the circuit design.

6. The method of claim 5, wherein the step of proposing the proposed solution comprises displaying at least one proposed solution on a display device, and wherein the step of receiving the selected solution comprises receiving an input signal from an input device.

7. The method of claim 5, wherein the step of re-configuring comprises editing a configuration file of the E-CAD tool.

8. The method of claim 1, further comprising storing data related to symptoms and solutions for the circuit configuration in the solutions database.

9.   The method of claim 1, wherein the steps of reading violations, identifying symptoms, identifying solutions, and proposing the proposed solution comprise using a software configuration tool stored in a computer memory.

10.   A computer system for analyzing signals in a circuit design stored in a memory, the system comprising:

a storage medium; and

a processor for executing a software program stored on the storage medium for analyzing a circuit design, the software comprising a set of instructions for:

reading violations of a specification for a circuit design;

identifying symptoms of the violations based on the circuit design;

identifying solutions to the violations based on the symptoms, using data in a solutions database; and

proposing a proposed solution based on data stored in the solutions database.

11.   The system of claim 10, further comprising instructions for:

configuring an E-CAD tool to the circuit design using a configuration file;

running the E-CAD tool on the circuit design;

detecting violations of the specification using the E-CAD tool; and

storing the violations to a violations file; and

wherein the step of reading violations comprises reading the violations file.

12.   The system of claim 11, further comprising instructions for:

receiving a selected solution;

re-configuring the E-CAD tool based on the selected solution; and

re-running the E-CAD tool on the circuit design.

13.   The system of claim 10, further comprising instructions for:

receiving a selected solution; and

editing a configuration file of an E-CAD tool based on the selected solution.

14.   The system of claim 13, wherein the step of proposing the proposed solution comprises displaying at least one proposed solution on a display device, and

wherein the step of receiving a selected solution comprises receiving an input signal from an input device.

15. A computer-readable medium having computer-executable instructions for performing a method for analyzing a computer representation of a circuit design, the method comprising:

reading violations of a specification for a circuit design;

identifying symptoms of the violations based on the circuit design;

identifying solutions to the violations based on the symptoms, using data in a solutions database; and

proposing a proposed solution based on data stored in the solutions database.

16. The medium of claim 15, the method further comprising:

configuring an E-CAD tool to the circuit design using a configuration file;

running the E-CAD tool on the circuit design;

detecting violations of the specification using the E-CAD tool; and

storing the violations to a violations file; and

wherein the step of reading violations comprises reading the violations file.

17. The medium of claim 16, the method further comprising:

receiving a selected solution;

re-configuring the E-CAD tool based on the selected solution; and

re-running the E-CAD tool on the circuit design.

18. The medium of claim 15, the method further comprising:

receiving a selected solution; and

editing a configuration file of an E-CAD tool based on the selected solution.

19. The medium of claim 18, wherein the step of proposing the proposed solution comprises displaying at least one proposed solution on a display device, and wherein the step of receiving a selected solution comprises receiving an input signal from an input device.

20. The medium of claim 18, the method further comprising re-running the E-CAD tool on the circuit design.